X-Ray Photoemission Study of Amorphous Tellurium

resistivity of the amorphous phase is constant at about $10^{-3}\Omega$cm in the temperature range below 660°C; the variation in the resistivity with the transition from the amorphous to the equilibrium state was measured.

Electron Diffraction Study of the Local Atomic Arrangement in Amorphous TlCl and CuCl Films

T. ICHIKAWA

Phys. Stat. Sol. b, **65** (1975), 411.

Thin films of amorphous TlCl and CuCl have been prepared by low temperature condensation in high vacuum, and a transmission electron diffraction study of them has been undertaken. A radial distribution analysis from the diffuse halo patterns obtained has been made and the local atomic arrangements in amorphous TlCl and CuCl are discussed by comparison of the experimental $W(r)(=\rho(r)/\rho_0)$ with $W(r)$'s calculated from disordered crystalline models.

X-Ray Photoemission Study of Amorphous Tellurium

Toshihiro ICHIKAWA

Japan. J. Appl. Phys., Suppl. 2, Pt. 1 (1974), 785. (Proc. 6th Internl. Vacuum Congr. 1974)

X-ray photoemission spectra of amorphous and trigonal tellurium (Te) have been measured with excitation of AlK_α, and differences between the two spectra have been investigated. General features of them are considerably similar to each other, which means the existence of the chain structure of atoms in amorphous Te. A peak due to bonding orbital of valence electron is, however, located at a deeper binding energy in amorphous Te than in trigonal Te, suggesting that bonding in the chains is stronger in amorphous Te than in trigonal Te.

Electron Diffraction Study of the Local Atomic Arrangement in Thin Films of Amorphous Gallium, Iron and Nickel

T. ICHIKAWA and S. OGAWA

J. de Phys, Colloque C4 (1974), C4–27.

Thin films of amorphous gallium, iron and nickel have been prepared by low temperature condensation in high vacuum, and a transmission electron diffraction study of these films has been undertaken. The radial distribution analysis of the patterns composed of diffuse halos has been carried out in order to investigate the local atomic arrangement in amorphous gallium, iron and nickel. $W(r)(=\rho(r)/\rho_0)$ experimentally derived has been compared with $W(r)$'s calculated from several structural models, leading to the conclusions that the structure of amorphous gallium is considerably similar to that of highly disordered β-gallium and that the structures of amorphous iron and nickel are, to a good approximation, represented by a dense random packed structure.